

Work Order ID 144129

144129

Page 1

Monday, April 04, 2016 3:17:29 PM

Item ID: D412-783-011 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Gross Weight Towing Cable
 Start Date: 4/4/2016 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 4/15/2016 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: MF Date: 16-4-4 Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3943	E
IIN-D412-783	D

100	Document Control	0.00	DAS 3-89						
100									
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPPD412-783-011 CHG 005								

MW 16-05-05
4

4 DAS 28 9-89 MAY 09 2016

110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									

4 DAS 21 9-89 MAY 09 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 144129***144129***

Page 2

Monday, April 04, 2016 3:17:29 PM

Item ID: D412-783-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Gross Weight Towing Cable

Start Date: 4/4/2016 Start Qty: 4.00 ***4***

Cust Item ID:

Required Date: 4/15/2016 Req'd Qty: 4.00 ***4***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.00

Quality Control

ENSURE CALIBRATION CERT. IS IN IIN PAPER WORK

4 DAS
28
9-89 MAY 09 2016

130

0.00

130

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D412-783-011

Location: FG129

PPP Rev: _____

4 DAS
28
9-89 MAY 09 2016

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.01

Quality Control

MCS MAY 10 2016
2m 16/05/09

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : ☐			
Misidentified ☐		Past Due ☐					

Picklist Print

Monday, April 04, 2016 3:17:29 PM

Page 1

Work Order ID: 144129

144129

Parent Item: D412-783-011

D412-783-011

Parent Item Name: Gross Weight Towing Cable

Start Date: 4/4/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 09-06-02 JLM Verified By:EC IPP Rev:B
@ chg 002 DD 10.02.22 Verified By:EC IPP Rev:C @ chg 004
DD 11.08.15 DD verf:JLM IPP Rev:D @ chg 005 DD 15.08.25
DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3943-041		Manufactured	No			110	Each	0.0000	1	4			DAS 27 5 9-89
D3943-041									**	141902			
Ground Handling Crank Assembly	28												
D3951-041		Manufactured	No			110	Each	5.0000	1	4			DAS 27 5 9-89
D3951-041									**	1x B146159			
Equipment Bag Assembly													
				<u>Location</u>			<u>Loc Qty</u>			<u>Loc Code</u>			
	DAS 28 9-89			ST387			5						
				137390			5						
D3954-1		Manufactured	No			110	Each	16.0000	2	8			DAS 27 5 9-89
D3954-1									**				
Gwt Pin													
	DAS 28 9-89			<u>Location</u>			<u>Loc Qty</u>			<u>Loc Code</u>			
				ST063			16						
				102473			15						
				70030			1						
D3954-3		Manufactured	No			110	Each	4.0000	2	8			DAS 27 5 9-89
D3954-3									**	142826			
Gwt Knob													
	DAS 28 9-89			<u>Location</u>			<u>Loc Qty</u>			<u>Loc Code</u>			
				ST063			4						
				135403			4						

MAY 09 2016

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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OTHER :																									

Picklist Print

Monday, April 04, 2016 3:17:29 PM

Page 2

Work Order ID: 144129

144129

Parent Item: D412-783-011

D412-783-011

Parent Item Name: Gross Weight Towing Cable

Start Date: 4/4/2016

Required Date: 4/15/2016

Start Qty: 4.00

Required Qty: 4.00

D3949-043

Manufactured No

110

Each

18.0000

1

4

D3949-043

Gross Weight Towing Cable Flag Assembly

DAS

DAS

8

27

9-89

9-85

MAY 09 2016

Location

Loc Qty

Loc Code

ST512

18

137428

8

142001

10

DAS
28
9-80

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

4.0 CALIBRATION

4.1 Calibration of the D3943-041 Tow Crank Assembly

BAS
27
9-89

- 4.1.1 The chain ratchet handle on the D3943-041 Tow Crank Assembly must be calibrated annually to ensure the handle indicates "clicks" when a 3500 lbs – 4000 lbs load has been achieved. To calibrate loosen setscrew that locks the threaded stainless steel ball plunger (Refer to figure 2 for details). Place a load cell inline and ratchet until the 3500 lbs – 4000 lbs has been reached. If the handle clicks before the 3500lbs load then turn plunger clockwise 1/8 turn, remove load and retry. If handle does not click between the 3500lbs and 4000 lbs load, turn plunger 1/8 turn counterclockwise, remove load and retry. Once the handle has been properly set retighten setscrew and test once more.

- 4.1.2 The Tow Crank Assembly may be returned to DART for calibration, at the operator's expense.

5.0 PARTS LIST

QTY -011	PART NUMBER	DESCRIPTION
X	D412-783-011	GROSS WEIGHT TOWING KIT
1	D3943-041	TOW CRANK ASSEMBLY
1	D3949-043	FLAG ASSEMBLY
1	D3951-041	EQUIPMENT BAG
2	D3954-1	GWT PIN
2	D3954-3	GWT KNOB